

**FIG.** 1



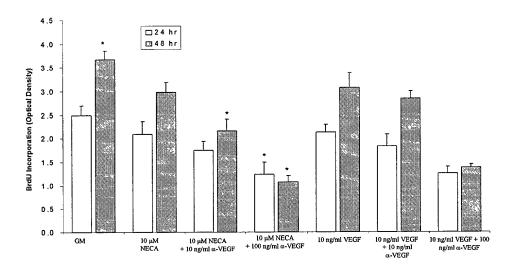


FIG. 2A

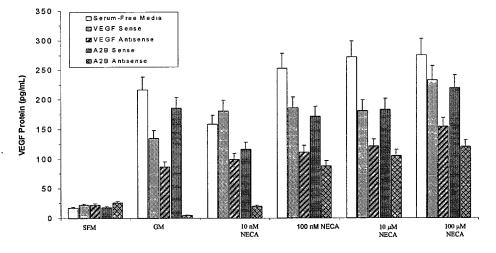
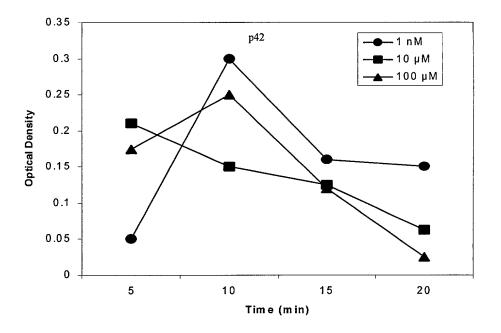
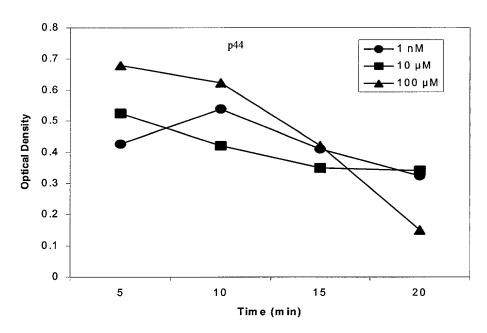


FIG. 2B





**FIG. 3** 

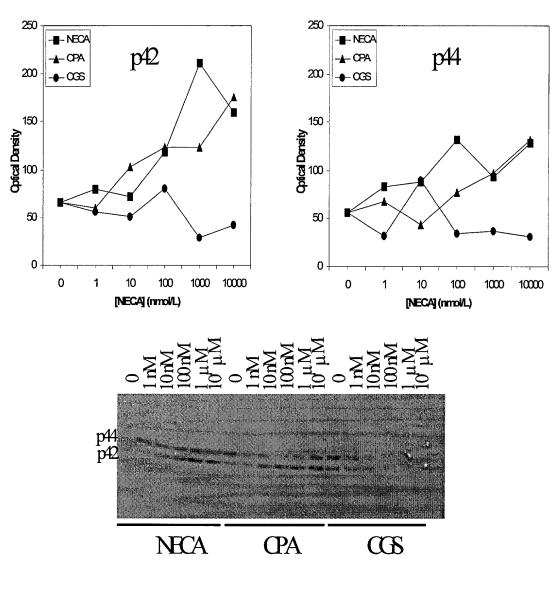
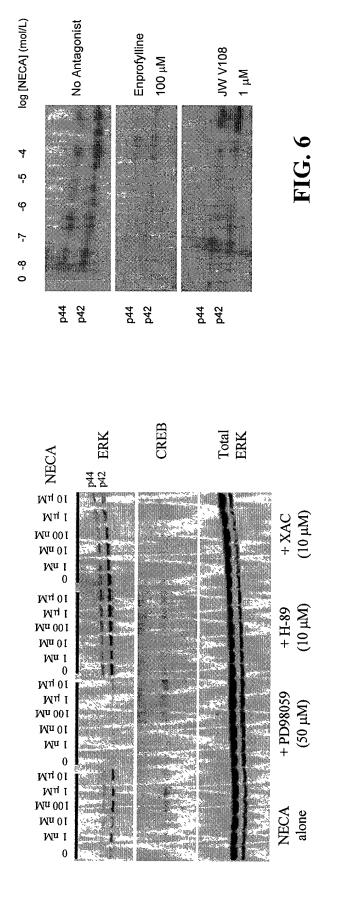
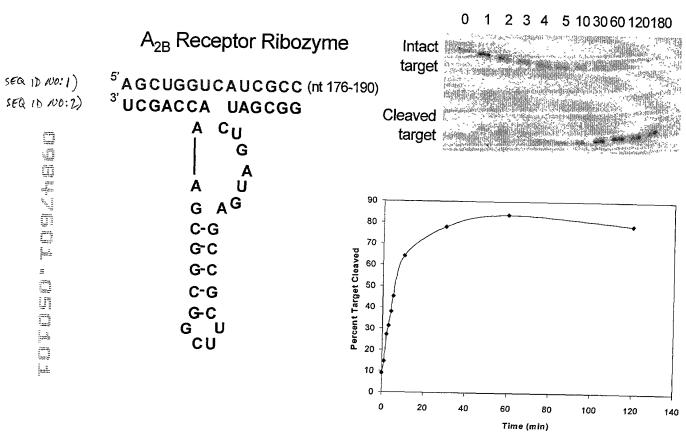


FIG. 4



Y LIE



**FIG.** 7

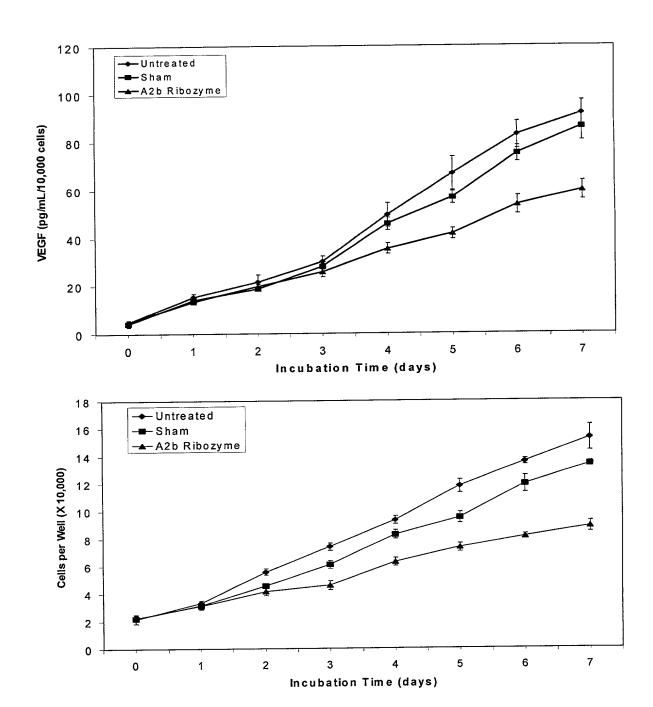
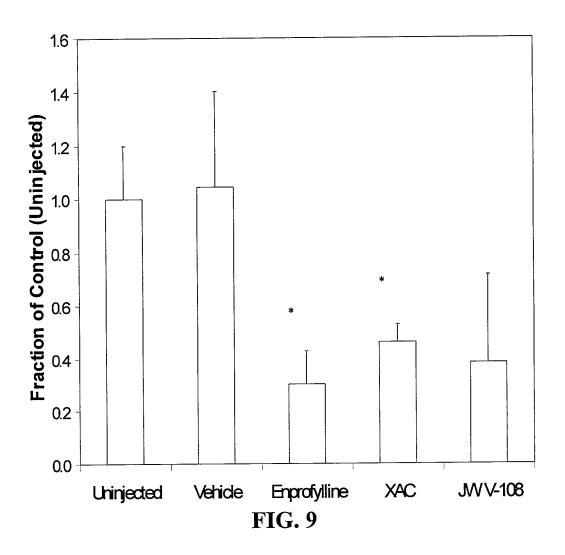


FIG. 8



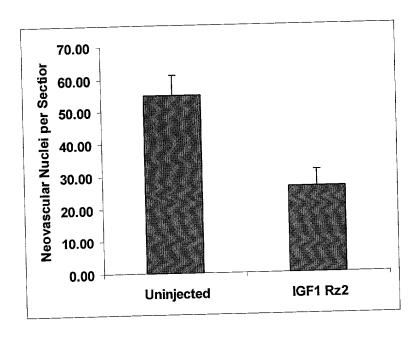
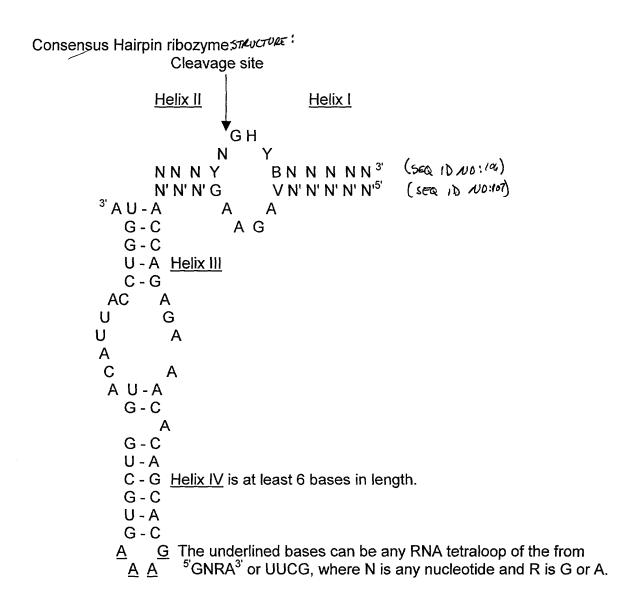


FIG. 10



N can be any ribonucleotide (A,C,G or U) and N' is the complementary nucleotide. Y is a pyrimidine. H is any nucleotide but guanosine (A, C or U). B is any nucleotide but adenosine (G,C or U). V is the complement of B (G, C or A).

**FIG. 11** 

## General hammerhead ribozyme structure:

```
nnnnn nnnnnnn si ( sequences of arms ) ($E6 10 100:108)

A C U (AW VARY AS SHOWN IN TARKES Y-8)

G (italicized positions are constant)

A U

G AG

C - G

G - C (The stem may be any 4 or 5 base double stranded helix with a G - C a 5 G - C 3 base pair at the top of the stem as drawn)

C - G

G - C

G U (underlined nucleotides in loop may be 5 UUCG or 5 GNRA or 5, where N is any nucleotide and R is a purine nucleotide)
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**FIG. 12**